

Product Texts

Glass fiber-reinforced and flame retardant polybutylene terephthalate compound

VESTODUR® GF30-FR3 BK V307168 is a glass fiber reinforced (with 30% glass fiber), semicrystalline thermoplastic compounds for injection molding, based on polybutylene terephthalate (PBT).

Test bars made of this compound are rated V-0, according UL94 by Underwriters Laboratories Inc., self-extinguishing and nondripping.

This compound is especially suitable for parts which are subjected to high mechanical and thermal loads and must have a very good flame-resistance.

The incorporated flame retardant is non-migrating and does not contain polybrominated diphenyl ethers. The additive has no corrosive effects on metal inserts or neighboring metal parts.

Therefore, the compounds are distinguished for moldings in the electrical and electronical industry. Laser marking with high contrasts is possible.

The compounds are supplied as cylindrical pellets in polyethylene packaging.

The use of colorants may affect property values.

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM
OR VISIT OUR PRODUCT AT WWW.VESTODUR.COM

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	12 / *	cm ³ /10min	ISO 1133
Temperature	250 / *	°C	-
Load	2.16 / *	kg	-
^[C] Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.2 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	11000 / 10850	MPa	ISO 527
^[C] Stress at break	140 / 125	MPa	ISO 527
^[C] Strain at break	2 / 2	%	ISO 527
^[C] Charpy impact strength, +23°C	55 / 46	kJ/m ²	ISO 179/1eU
^[C] Type of failure	C / C	-	-
^[C] Charpy impact strength, -30°C	60 / 50	kJ/m ²	ISO 179/1eU
^[C] Type of failure	C / C	-	-
^[C] Charpy notched impact strength, +23°C	10 / 8	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C / C	-	-
^[C] Charpy notched impact strength, -30°C	9 / 9	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C / C	-	-
^[C] Shore D hardness	84 / *	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	222 / *	°C	ISO 11357-1/-3

^[C] Glass transition temperature, 10°C/min	44 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	216 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	223 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	213 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	50 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
^[C] Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
^[C] Oxygen index	34 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.1 / -	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4.4 / -	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	30 / -	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	150 / -	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E12 / -	Ohm*m	IEC 62631-3-1

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	0.4 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.2 / *	%	Sim. to ISO 62
^[C] Density	1720 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Features

Laser Markable

Delivery form

Pellets, Black

Applications

Electrical and Electronical

Special Characteristics

Flame retardant

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa